Chapter 2

SCOPING GUIDELINES FOR CSM WORK

A. INITIAL PROJECT SELECTION

From the Strategic Investment Plan for Trunkline Bridges: "Scheduled maintenance activities maintain the existing serviceability, and reduce deterioration rates on bridges". CSM work activities sustain the current bridge condition longer, whether the current condition is good or poor. Use the following general concepts when setting up projects for CSM work:

- The anticipated work should have little or no impact to traffic and have very little traffic control costs.
- The work should be of short duration, typically completed within one working day.
- The work should be focused on activities that if left unattended will cause deterioration of the structure leading to more expensive repairs.
- Priority should be given to corridors where the same small task can be performed on many bridges.

From the definition above, starting with "worst bridges first" will not work. The intended outcome from this program is to delay structural deterioration as long as possible, and to accomplish this, certain work activities must be performed on the bridge system.

Therefore, the first step in the process is to identify bridges that are good candidates for CSM work activities and are fairly close together so they can be grouped as one project. From these groups, evaluate the most appropriate work activities by reviewing the inspection comments on the NBI Inspection Reports.

There are two ways to bundle projects for these work activities: set up a project to do one work activity on a group of bridges, or take a group of bridges and do all of the work activities that are necessary to that group. The Region Bridge Engineer may package the contract as it best suits their bridge network.

This is a new program and the department has limited experience with the contractors doing this kind of work. The industry also is unfamiliar with seeing this type of work outside of the context of a much larger project. So, it is recommended that contracts be limited to one or two work activities over a group of bridges until the department and the industry gain experience with the program. Once this experience has been gained, bundling various work activities for a single contract is expected to be the norm.

B. TYPICAL CSM WORK ACTIVITIES

- Superstructure Washing
- Vegetation Control
- Drainage System Cleaning / Repair
- Spot Painting
- Joint Repair (resealing construction joints)
- Concrete Sealing
- Minor Concrete Patching and Repair
- Concrete Crack Sealing
- Approach Pavement Relief Joints
- Slope Paving Repair

Each individual work activity is defined in the following chapters, along with a brief description of how to scope it, special provisions to use, and appropriate pay items.

Please note: The first two activities listed (superstructure washing and vegetation control) are not currently eligible for federal funding and thus cannot be contracted out at this time.

C. SCOPING SITE VISIT

After the bridges have been identified as potential candidates for a CSM project, each bridge must be visited to confirm the appropriateness of the proposed work activity and to determine the estimated quantity of each pay item at that structure. This data is entered into the electronic version of the CSM Bridge Project Cost Estimate Worksheet, explained below and in Chapter 14.

D. ESTIMATING

Chapter 14 contains a copy of the CSM Bridge Project Cost Estimate worksheet, with unit prices of all of the work activities and applicable pay items. Some work activities will require the combining of several pay items, such as when making slope paving repairs where structure embankment may be necessary to fill the voids prior to placing new slope paving and headers.

On the worksheet, fill in the bridge number, the location, and quantities for the selected work activities or pay items, and the estimated project cost for that bridge will be calculated. The Quattro Pro file for this estimating workbook includes 30 Bridge Estimate Sheets and a Project Summary. For multiple bridge entries, the information on the Estimate Sheets will be transferred to the Project Summary and totaled.

E. SCOPING PACKAGE SUBMITTAL (to Bridge Operations Unit of C&T)

The following scoping documents are to be turned in to the Bridge Operations Unit of C&T for Project Programming:

1. Program Revision Request
2. Project Concept Statement (MPINS)
3. CSM Bridge Project Cost Estimate
4. Current Inspection Report (BIR or CIR)
5. Photographs of the Bridge (note: photographs are needed only if project is being designed by the Bridge Design Unit in Lansing)

In a cover memo, list the bridges that are to be packaged together for each CSM project.

Note - Until MPINS is set up with a cost estimate form specifically for CSM projects, input only the total cost per structure on the Project Concept Statement under "bridge cost", work item "miscellaneous", unit cost "other".

F. DESIGN PACKAGE SUBMITTAL (to Specs and Estimates in Design)

For CSM projects designed in the Region, the following documents must be turned in to the Specifications and Estimates section of Design to advertise the project for bid letting:

1. Advertising data sheet
2. Submission of Proposal Package checklist
3. Project Certification Acceptance form (Road CPM version)
4. Utility Company listing
5. Utility Relocation Status Report
6. TRNSPORT - both bid based and cost summary by proposal
7. Title Sheet
8. Plan Notes
9. Log of Project
10. Progress Clause
11. Log Job details
12. Maintaining Traffic Special Provision
13. Special Provisions and Supplemental Specifications

14. Notice to Bidders
15. Permits (if applicable)
16. Railroad Special Provisions, Permits, Notice to Bidders (if applicable)

Packaging the above documents can be challenging the first few times. Since the process is the same as for Road projects, the Region/TSC Road Design unit can be a valuable resource if assistance is needed.

Project Certification Acceptance form (item #3 above) - The Project Certification Acceptance form (CA form) for Road CPM Projects may be used for Bridge CSM projects. This is a condensed version of the standard CA form, and is available in the MDOT forms library. The CA form is a PDF document which requires the Adobe Acrobat Reader. A copy of the CA form can be found in Appendix A of this manual, but it is recommended that the most current version be downloaded for each project. The address on the MDOT Interchange is:

http://www.mdot.state.mi.us/webforms/

G. RAILROAD GRADE SEPARATIONS

Any work that has the potential to affect the safety of railroad operations and/or the clearance envelope requires coordination with the railroad through the Governmental & Railroad Coordination unit of the Design Division. The lead time needed to complete railroad coordination activities typically takes several months, so early notification is essential. All projects involving railroad coordination also need to establish a dollar amount for "Railroad Inspection and Flagging". It is recommended that this be set at $600 per day times the number of days the contractor will be working. Since the CSM program is intended to produce projects that will be uncomplicated and of short duration, projects requiring railroad coordination may want to be avoided.

The following work activities would not impact the railroad and thus would not likely require railroad coordination:

1. Approach pavement relief joints
2. Concrete sealing only on the bridge deck or inside (roadside) faces of bridge barrier railing.
3. Any work activity that is more than 50' away from the nearest railroad track, as long as there is no possibility of workers crossing the track or equipment within 50' of the track, and if the construction activity would not adversely affect the railroad.

If in doubt, contact Steve Rapp in the Governmental & Railroad Coordination unit of the Design Division.